

## THE MEMBRACIDÆ OF AFRICA

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As the descriptions of African Membracidae have appeared in a number of foreign publications and in several languages, some of which are not easily accessible, this paper has been prepared to enable students of the group to identify the numerous genera and species.

A few forms which have not been observed since first described have been included in the genera in which, judging from the published description, they appear to belong.

The subfamily Membracidae was first recognized as an Old World group by Stål and later by Distant whose opinions are worthy of approval. The division into tribes is for convenience of identification as made plain in the writer's "Classification of the Old World Membracidae."

The dimensions represent the length from the head to the tips of the tegmina, and the greatest width between the tips of the suprähumerals if present, and between the humerals of the unarmed forms.

## ÆTHALIONINÆ

### *Ethalionini*

## **Coloborrhis**

Germar, Rev. Ent. Silb. iv, p. 72 (1836); *Euryprosopum* Stål, Ofv. Vet. Akad. For. p. 267 (1853); *Bohemania* Stål, Ofv. Vet. Akad. For. p. 97 (1855). *Oclasma* Melichar, Wein. Ent. Zeit. xxiv, p. 293 (1905).

#### KEY TO SPECIES

- 1(2). Pronotum grayish-testaceous clouded with brown, punctate not granulate; scutellum concolorous, fuscous punctate; 4-5 mm. *corticina*

2(1). Pronotum ferruginous with yellow points, densely granulate-punctate, a small black gibba each side near base; abdomen piceous, sides and margins of segments testaceous, first and third segments with a raised median line; scutellum blackish, yellow trilineate; 4.5 mm. *perspicillaris*

## LIST OF SPECIES

- corticina** Germar, Rev. Ent. Silb. iv, p. 73 (1836). Cape Colony.  
*sobrina* Stål, Ofv. Vet. Ak. For. p. 97 (1855). Caffraria.  
*patruelis* Stål, Ofv. Vet. Ak. For. p. 98 (1855). Caffraria.  
**perspicillaris** Gerstæcker, Deck. Reis. Ost-Africa, ii, p. 431 (1873). Lake Jipe, German East Africa.  
*degenerata* Melichar, Wein. Ent. Zeit. xxiv, p. 294 (1905). Usambara, Kwankoro, Kilimanjaro, Kiboscho, German East Africa.  
*corticina* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 123, pl. 2, fig. 12 (1910). Kilimanjaro, Meru, Kiboscho, German East Africa.

## CENTROTINÆ

*Gargarini**Gargara*

Amyot and Serville, Hemip. p. 537 (1843); *Mærops* Buckton, Mon. Memb. p. 257 (1903).

## KEY TO SPECIES

- 1(8). Tegmina grayish-hyaline, base and subapical fascia black or brown; dorsum straight.
- 2(5). Pronotum, base and subapical transverse fascia of tegmina black.
- 3(4). Pronotum densely yellow pubescent, posterior apex extended to inner angle of tegmina; 4 mm. .... *variegata*
- 4(3). Pronotum slightly pale pilose, posterior apex extended to apex of clavus; extreme apical margin of tegmina fuscous; tarsi testaceous; 3 mm. .... *addahensis*
- 5(2). Pronotum and tegminal markings brown.
- 6(7). Tegmina much longer than abdomen, semiopaque, base brown, a fuscous subapical cloud; pronotum with spots on base, lateral margins and apex posterior process, black; abdomen brown, margins of segments gray; 3.5 mm. .... *makalakæ*
- 7(6). Tegmina long as abdomen, hyaline, narrow base and broad transverse median band brown; pronotum brown densely yellow pubescent, a black spot above each eye; body and abdomen black; 4 mm. .... *nyanzai*
- 8(1). Tegmina black or brown with paler markings.
- 9(15). Pronotum black.
- 10(16). Tegmina black with paler areas; slightly pubescent; dorsum straight.
- 11(14). Tegmina largely black, the paler markings narrow.
- 12(13). Tegmina with a transverse subapical vitreous line: 3 mm. .... *asperula*
- 13(12). Tegmina with the apical area pale brown, or a narrow basal fascia; 6 mm. .... *aterrima*
- 14(11). Tegmina with basal fourth black, apical third purplish, central area grayish, sometimes forming two transverse fasciæ; 4 mm. .... *perpolita*

- 15(9). Tegmina bronze-brown, basal area, narrow costal and apical margins, apical area of hind margin, and sometimes a subapical spot, black or piceous; posterior process slightly sinuate, extended to inner angle of tegmina; 6 mm. .... *ænea*
- 16(10). Pronotum brown, legs paler; dorsum of posterior process distinctly concavely sinuate at middle, apex black, decurved, passing inner angle of tegmina; tegmina pale brown, a suffused gray transverse fascia near base, apical margin and subapical spots paler; 3 mm. .... *fraterna*

#### LIST OF SPECIES

- variegata* Signoret, Thoms. Arch. Ent. ii, p. 340 (1858). Calabar, West Africa; Ituri, Central Africa.
- addahensis* Distant, Ann. Mag. N. H. xvi, p. 489 (1915). Addah, Gold Coast.
- makalakæ* Distant, Ins. Transv. i, p. 217, pl. 21, fig. 18 (1908). Mpudzi R., Rhodesia.
- nyanzai* Funkhouser, An. Zool. Mus. Acad. Sci. USSR, xxviii, p. 154, pl. 6, fig. 10 (1927). Bukoba, Victoria Nyanza.
- asperula* Walker, List Hom. B. M. Suppl. p. 162 (1858). Sierra Leone.
- atterima* Distant, Ann. Mag. N. H. xvi, p. 491 (1915). Uganda, Budongo Forest, Unyoro, Buamba Forest, Semiliki Valley, Mabira Forest, Chagwe, East Africa.
- perpolita* Distant, Ann. Mag. N. H. xvi, p. 490 (1915). Uganda, Budongo Forest, Unyoro, Mpanga Forest, Toro, East Africa.
- ænea* Distant, Ann. Mag. N. H. xvi, p. 491 (1915). Uganda, Entebbe, Bogondo, Unyoro, East Africa.
- fraterna* Distant, Ann. Mag. N. H. xvi, p. 490 (1915). Addah, Gold Coast.

#### Xanthosticta

Buckton, Mon. Memb. p. 63 (1903); *Tiberianus* Distant, Ann. Mag. N. H. xvi, p. 495 (1915).

#### KEY TO SPECIES

- 1(2). Pronotum testaceous, disk and posterior process with chest piceous, legs and abdomen testaceous; tegmina hyaline, base and costal margin narrowly piceous or testaceous; 4 mm. .... *typica*
- 2(1). Pronotum fuscous brown, posterior process tricarinate, its apex distinctly passing apex of clavus; legs brown; tegmina subhyaline, with a yellow macular basal fascia, apical area brown clouded; 5 mm. .... *bulbacea*

#### LIST OF SPECIES

- typica* Distant, Ann. Mag. N. H. xvi, p. 494 (1915). Umtali, Rhodesia.
- bulbacea* Distant, Ann. Mag. N. H. xvi, p. 494 (1915). Stellenbosch, Cape Colony.

#### Kombazana

Distant, Ins. Transv. i, p. 217 (1908).

## KEY TO SPECIES

One castaneous brown species with black legs; pronotum finely granulose, posterior process sinuate, thick and convexly raised above the scutellum, then straight and more slender to inner angle of tegmina; tegmina semiopaque, apical area brownish ochraceous; tibiae moderately dilated; 4.5-5 mm. .... **fidelis**

## LIST OF SPECIES

**fidelis** Distant, Ins. Transv. i, p. 218 (1908). Johannesburg, Transvaal.

**Promitor**

Distant, Ann. Mag. N. H. xvi, p. 495 (1915).

## KEY TO SPECIES

One pale ochraceous species with head, body and legs pale brown, tips of femora and tarsi ochraceous; posterior process robustly recurved to apex of scutellum, then slender, linear and recurved upwardly; tegmina subhyaline with a transverse central and oblique subapical fascia and apical spots fuscous brown; 5 mm. .... **nominatus**

## LIST OF SPECIES

**nominatus** Distant, Ann. Mag. N. H. xvi, p. 495 (1915). Umkomaas R., Natal.

**Umfilianus**

Distant, Ann. Mag. N. H. xvi, p. 496 (1915).

## KEY TO SPECIES

1(2). Entirely black, margins of abdominal segments ochraceous; posterior process strongly arched from base to beyond apex of scutellum, then impinging upon margins of tegmina beyond inner angle, rather slender from base; tegmina subhyaline, basal cells blackish; 6 mm. .... **declivis**

2(1). Piceous, shining, head irrorate, margins of abdominal segments paler; posterior process slender, base strongly curved above the scutellum, sinuate, descending obliquely nearly to tips of tegmina; tegmina base black, then pale yellow, apical third bright yellow, basal half of costa, apical area of longitudinal veins, basal veins of discoidal cells, piceous; scutellum black; 6.75 mm. .... **fenestratus**

## LIST OF SPECIES

**declivis** Distant, Ann. Mag. N. H. xvi, p. 496 (1915). Umfili R., Mashonaland.

**fenestratus** Gerstaecker, Deck. Reis. Ost Africa, ii, p. 429 (1873). Endara, German East Africa.

**Hamma**

Buckton, Trans. Linn. Soc. Lond. Zool. ix, p. 320 (1905).

## KEY TO SPECIES

- 1(2). Posterior process rather evenly sinuate and thick, apical area slightly larger, emitting a thick horizontal spine; tegmina hyaline, base piceous, then a pale transverse fascia and small discal diffusions; long vein of clavus extended to the apex; 4 mm.  
**nodosum**
- 2(1). Posterior process heavier and thicker, trilobed, the sinuosities more abrupt, first and second convexities about equal, middle one constricted at the middle, apical area much larger and bulbous without (?) a terminal spine; tegmina hyaline, base brown, small fuscous cloud on the anal angle; long vein of clavus not extended to the apex; 4.5 mm. .... **mabirensis**

## LIST OF SPECIES

- nodosum** Buckton, Trans. Linn. Soc. Lond. Zool. ix, p. 330, pl. 21, fig. 3 (1905). Cameroons.
- pattersoni** Distant, Ann. Mag. N. H. xvii, p. 157, fig. on p. 158 (1916); China, Ann. Mag. N. H. (9), xi, p. 463, fig. 3 (1923). Aburi, Ashantee, Gold Coast.
- mabirensis** China, Ann. Mag. N. H. (9), xi, p. 463, figs. 1 and 2 (1923). Mabira, Uganda, East Africa.

*Centrotini***Eumonocentrus**

Schmidt, Zool. Anz. xxxviii, p. 241 (1911); *Beninia* Distant, Trans. Ent. Soc. Lond. iii, p. 517 (1914).

## KEY TO SPECIES

- 1(4). Suprumerals contiguous nearly to summits; pronotum, abdomen and legs brown; posterior process slightly sinuate; ocelli equidistant, above the center of eyes.
- 2(3). Suprumerals slightly separated near bases, then contiguous, lateral lobes short, oblique, flat; pronotum unicarinate; tegmina ferruginous-hyaline a brown cloud near apex of clavus; 6.7 mm.  
**bifurcus**
- 3(2). Suprumerals contiguous from bases, lateral lobes transverse, moderately long, slender; tegmina shining ochraceous; disk of pronotum tricarinate ..... **lamborni**
- 4(1). Suprumerals contiguous from bases to apical third, lateral lobes diverging, triangular, inclined forward; tegmina amber-hyaline, brown spot near apex of clavus; front and middle tarsi yellow; pronotum reddish-brown, pubescent; ocelli equidistant; 6 mm.  
**erectus**

## LIST OF SPECIES

- bifurcus** Funkhouser, An. Mus. Acad. Sci. USSR, xxviii, p. 148, pl. 5, fig. 4 (1927). Bukoba, Victoria Nyanza.

*Iamborni* Distant, Trans. Ent. Soc. Lond. (3) iii, p. 517 (1914). Oni near Lagos, Coast of N. Nigeria.

*erectus* Schmidt, Zool. Anz. xxxviii, p. 242 (1911). Fernand-Vaz, French Congo.

### Paraxiphopœus

Goding, Am. Mus. Novitates No. 421, p. 26 (1930); Jour. N. Y. Ent. Soc. xxviii, p. 89 (1930).

#### KEY TO SPECIES

- 1(6). Posterior process with apical half broad, compressed, arched, apex briefly acute; tegmina three times longer than broad.
- 2(5). Ocelli approaching the eyes; tegmina nearly three times longer than broad; posterior process with a carina on upper and lower margins but without lateral carinæ; legs yellowish; apex scutellum notched.
- 3(4). Black; posterior process nearly horizontal from basal angle to the middle, then moderately convex, longer than but distant from tegmina, apical third oblique, briefly acute; suprumerals strongly recurved from middle, tips foliaceously dilated, triangular, a carina on the upper surface; tegmina blackish-brown, hyaline spot behind clavus; 10 mm. .... *schubotzi*
- 4(3). Brown; posterior process strongly convex from basal angle, long as tegmina, apical third nearly perpendicular; suprumerals slender, equally broad, front and hind margins coarsely granular, nodular on the arched surface, tips acute; pronotal carinæ, nodules, basal half of posterior process, orange-red, middle of hind margin of pronotum, last abdominal segment, and legs yellow; 7-8.5 mm. .... *gestroi*
- 5(2). Black; ocelli equidistant; posterior process strongly convex from basal angle, cylindrical for basal third, then strongly compressed, broad, apical third perpendicular, long as but distant from tegmina, a strong carina each side, margins serrate; suprumerals compressed, margins serrate, oblique, strongly curved outward and backward, tips foliaceously dilated, triangular, acute; tegmina four times longer than broad, opaque yellow-brown, long central stripe on apical half, one on clavus, sordid white-hyaline; margins abdominal segments pale; legs yellow; 9 mm. .... *arebiensis*
- 6(1). Posterior process very slender from base, straight, triquetrous, long as tegmina; pronotum black, hirsute, suprumerals slender, strongly curved outward and backward, apical fourth triangularly dilated, upper surface reticulate; apex scutellum obtuse; tegmina four times longer than broad, dark brown, base and veins black; ocelli slightly nearer to eyes; 9 x 8 mm.

*nodosus* Goding

#### LIST OF SPECIES

*schubotzi* Jacobi, Wiss. Erg. Deut. Cent.-Afrika. Exped. 1907-8, p. 36, pl. 3, fig. 14 (1912). Ruwenzori, Congo Free State.

**gestroi** Schmidt, Zool. Anz. xxxviii, p. 234 (1911). Fernando Poo Is., Basile, Spanish West Africa.

**arebiensis** Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 89 (1930). Arebi, New Congo.

**nodosus** Goding, Am. Mus. Novitates, No. 421, p. 26 (1930). Dar, Sudan, Africa.

#### Monocentrus

Meliehar, Wein. Ent. Zeit. xxiv, p. 297 (1905). *Basilides* Distant, Ann. Mag. N. H. xvii, p. 149 (1916).

#### KEY TO SPECIES

- 1(8). Posterior process strongly sinuate, pronotum brown or yellow.
- 2(5). Basal angle of posterior process without an anterior tooth; suprumerals contiguous at least on basal third, the diverging area laminate, half as broad as long, tips acute; scutellum long as broad.
  - 3(4). Most of pronotum, middle third and tip of posterior process, yellow; tegmina brown-clouded, a hyaline spot at apex of clavus, brown spot on sutural angle; 5–6.5 mm. **laticornis**
  - 4(3). Pronotum brown, pubescent, narrow tomentose stripe posteriorly each side; tegmina brown with black spots; 4.5–5.5 mm. **deletus**
  - 5(2). Basal angle of posterior process with a more or less distinct anterior tooth; suprumerals contiguous at least on basal third, moderately long, narrow, acuminate lateral lobes.
  - 6(7). Pale brown, except darker tips of the tegmina and fuliginous stain near costa, and ferruginous legs; scutellum longer than broad; 7 mm. **fuscum**
  - 7(6). Pronotum yellow, white line each side posteriorly, sometimes ferruginous, a broad yellow band between humerals, the suprumerals beneath and margins yellow, the posterior carinae continued each side to lateral margins; middle of posterior process yellow; scutellum longer than broad; tegmina brown, apical area paler, or yellow with brown apical spot; 4–5 mm. **bipennis**
  - 8(1). Posterior process nearly straight, basal angle with an anterior tooth; pronotum brown, middle tibiæ yellow; ocelli equidistant.
  - 9(10). Tegmina entirely hyaline, veins yellow, a small brown spot on sutural angle; suprumerals contiguous on basal two-fifths, then diverging and broadest near acute tips; posterior process lightly convex; a white tomentose line each side posteriorly; scutellum long as broad; ocelli much nearer eyes; 5.5–6 mm. **hyalinipennis**
  - 10(9). Tegmina opaque brown; ocelli equidistant.
  - 11(12). Scutellum longer than broad; suprumerals contiguous at base only, then diverging, moderately broad, acute; tooth at basal angle of posterior process long as broad; tegmina brownish-yellow, bases and spot on middle of costa black; wings smoky-black, bases paler; 7.5 mm. **opacus**

- 12(11). Scutellum long as broad; suprumerals narrow, briefly contiguous at bases; posterior process slightly sinuate, a small rounded node on basal angle not produced in a tooth; tegmina with central spot and band behind clavus not reaching costa, white; wings colorless hyaline; 6.5 mm. .... *albomaculatus*

#### LIST OF SPECIES

- laticornis*** Schmidt, Zool. Anz. xxxviii, p. 238 (1911). Barombi, Cameroons.  
*pharaonus* Schmidt, Zool. Anz. xxxviii, p. 239. Barombi, Cameroons.  
***deletus*** Melichar, Wein. Ent. Zeit. xxiv, p. 297 (1905). Amani, Bomole, Kibonoto, Kilimanjaro, German East Africa.  
***fuscum*** Buckton, Trans. Lin. Soc. Lond. Zool. ix, p. 334, pl. 22, fig. 2 (1905). Cameroons.  
***bipennis*** Walker, List Hom. B. M. p. 606 (1851). Old Calabar, Cameroons.  
*albolineatum* Buckton, Mon. Memb. p. 216, pl. 48, fig. 6 (1903). Ograga, Niger R., West Africa.  
*insularis* Schmidt, Zool. Anz. xxxviii, p. 239 (1911). Fernando Poo Is., Spanish West Africa.  
***hyalinipennis*** Schmidt, Zool. Anz. xxxviii, p. 240 (1911). Fernand-Vaz, Cameroons.  
***opacus*** Schmidt, Zool. Anz. xxxviii, p. 239 (1911). Fernando Poo Is., Moca, Spanish West Africa  
***albomaculatus*** Schmidt, Zool. Anz. xxxviii, p. 240 (1911). Cameroons.

#### Anchon

Buckton, Mon. Memb. p. 214 (1903).

#### KEY TO SPECIES

- 1(4). Basal angle of posterior process without an anterior tooth; suprumerals oblique, tips dilated, subtruncate.  
 2(3). Pronotum ferrugino-fuscous, granulose, a pubescent line each side posteriorly; posterior process straight from basal angle; tegmina fusco-ferruginous subhyaline; 7 mm. .... *bilineatus*  
 3(2). Pronotum black, punctate, not granulose; posterior process depressed at middle; tegmina smoky-hyaline, base and interior apical margin brown; 7 mm. .... *gunni*  
 4(1). Basal angle of posterior process without an anterior tooth; suprumerals oblique, tips dilated, subtruncate.  
 5(14). Posterior process sinuate.  
 6(11). Tegmina yellowish-hyaline; tarsi yellowish.  
 7(10). Surface of pronotum granulate, black or brown.  
 8(9). Basal tooth of posterior process very prominent, directed forward, basal area of posterior process robust; tegmina with base, median costal spot, spot behind clavus, and transverse apical veins, dark brown; 5.5 mm. .... *aries*

- 9(8). Basal tooth of posterior process barely evident; suprumerals carinate on upper surface; tegmina with base, median costal spot, brown; abdomen gray, black punctate; 5 mm. .... *minor*
- 10(7). Surface of pronotum punctate, not granulate; form slender; black, stripe each side posteriorly and sides of chest pubescent; margins of abdominal segments yellow; tegmina with base, spot on middle of costa and apical margin, dark-brown; 5.5–6.5 mm. .... *gracilis*
- 11(6). Tegmina black or dark brown, tarsi yellowish; tips suprumerals broadened, briefly acute.
- 12(13). Surface of pronotum granular, base of posterior process robust; stripe each side posteriorly and chest pubescent; base of tegmina, costa and limbus, black, transverse median hyaline median band; 6 mm. .... *dschagga*
- 13(12). Surface of pronotum punctate, not granular, black, median carina castaneous, stripe each side posteriorly and scutellum pubescent; tegmina with small pale spot on apex of clavus and exterior half of apical area ochraceous; 5.6 mm. .... *decoratum*
- 14(5). Posterior process straight or nearly straight from basal angle.
- 15(20). Legs yellow; pronotum reddish-brown or black.
- 16(17). Posterior process lightly arched from basal angle to apex; tegmina dark-brown, base, median costal spot and tips reddish or piceous; 5.5–6 mm. .... *flavipes*
- 17(16). Posterior process straight from basal angle; pubescent; tegmina infuscate.
- 18(19). Suprumerals slender at bases, margins rough, summits compressed, angular, acuminata; stripe each side posteriorly, basal angles of scutellum, and sides chest pubescent; tegmina with a pale spot behind clavus; 6 mm. .... *senegalensis*
- 19(18). Suprumerals broader, more expanded, tips more obtuse; weakly pubescent; base of tegmina, costa and apical limbus fuscous; 5 mm. .... *vicus*
- 20(15). Legs black; pronotum black or brown.
- 21(24). Bases of suprumerals distant, a pubescent line behind each.
- 22(23). Tegmina hyaline, base, median costal spot, and apical margin dark brown; tarsi brown; ocelli equidistant; 6–7 mm. .... *limbatum*
- 23(22). Tegmina pale testaceous, apical margin darker, base and costa piceous; tarsi ferruginous; ocelli nearer to eyes; 7–8.5 mm. .... *nodicornis*
- 24(21). Bases of suprumerals slender, not distant, margins serrate; tegmina sordid hyaline; 5 mm. .... *proximus*

#### LIST OF SPECIES

*bilineatus* Stål, Ofv. Vet. Ak. Forh. p. 95 (1855). Natal, Caffraria.

*gunni* Funkhouser, Can. Ent. li, p. 220, pl. 19, figs. 1–2 (1919). Pretoria, Transvaal.

- aries* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 122, pl. 2, fig. 4 (1910). Kilimanjaro, Kibonoto, Meru, East Africa.
- minor* Melichar, Wein. Ent. Zeit. xxiv, p. 296 (1905). Bomole, East Africa.
- gracilis* Schmidt, Zool. Anz. xxxviii, p. 236 (1911). Fernando Poo Is., Moca, Spanish West Africa.
- dschagga* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 122, pl. 2, fig. 4 (1910). Usambara, Mombo, Kilimanjaro, Kibonoto, E. Africa.
- decoratum* Distant, Trans. Ent. Soc. Lond. (3) iii, p. 516 (1914). Oni near Lagos, N. Nigeria.
- relatum* Distant, Trans. Ent. Soc. Lond. iii, p. 516 (1914). Oni near Lagos, N. Nigeria.
- flavipes* Schmidt, Zool. Anz. xxxviii, p. 237 (1911). Victoria Nyanza, Arcip. di Sesse, Bugala, Musola, East Africa.
- ? *remigium* Buckton, Mon. Memb. p. 215, pl. 48, fig. 5 (1903). Unknown.
- senegalensis* Fairmaire, Rev. Memb. p. 511 (1846). Senegal, Fernando Poo Is., West Africa.
- vicus* Signoret, Thoms. Archiv. ii, p. 339 (1858). Gabon, Calabar.
- limbatum* Schmidt, Zool. Anz. xxxviii, p. 235 (1911). Victoria Nyanza, Uganda, Archip. di Sesse, Bugala, Busu Busorga, East Africa.
- nodicornis* Germar, Rev. Ent. Silb. iii, p. 257 (1835); Fairmaire, Rev. Memb. p. 511, pl. 3, fig. 13 (1846); Buckton, Mon. Memb. p. 215, pl. 48, fig. 1 (1903); Distant, Ins. Transv. i, p. 216, pl. 21, fig. 19 (1908). Cape Colony; Durban; Krentz Kloof, Natal, S. Africa. Bomole, Kilimanjaro, Kibonoto, Melsetter, Gazaland, Rhodesia.
- proximus* Signoret, Ann. Soc. Ent. Fr. (3) viii, p. 202 (1860). Madagascar Is.

### Spalirises

Distant, Ann. Mag. N. H. xviii, p. 29 (1916).

#### KEY TO SPECIES

- 1(4). Suprumerals transverse, short, robust, acuminate; posterior process strongly robustly elevated at base in angle, leaving the scutellum exposed, then deeply concave to behind scutellum and sinuate, extended to interior angle of tegmina; ocelli near eyes.
- 2(3). Black, rugose, pubescent; disk of pronotum higher than suprumerals, median carina strong; tegmina translucent ferruginous, a transverse median hyaline fascia; legs brown, tarsi yellow; 7-8 mm. *rugosa*
- 3(2). Dark brown to black, not rugose, body and legs yellow pubescent; disk of pronotum lower than suprumerals, median carina very acute anteriorly; tegmina dark vinaceous with two transverse hyaline bands; dorsal carina of posterior process serrate; 8 mm. *alticornis*
- 4(1). Suprumerals long, rather slender, directed obliquely upward and forward, prismatic; base of posterior process weakly but dis-

tinctly elevated in an obtuse angle, near and touching apex of scutellum, then sinuate passing interior angle and following margins of the tegmina; ocelli equidistant; 7-8 mm. .... *humilis*

#### LIST OF SPECIES

- rugosa* Funkhouser, An. Mus. Zool. Acad. Sci. USSR, xxviii, p. 149, pl. 5, fig. 5 (1927). Bugombe near Bukoba, Victoria Nyanza.
- alticornis* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 122; Wiss. Erg. Deut. Cent-Afrik. Exped. 1907-8, p. 35, fig. A, a (1912). Meru, Usambara, Kericho, Uganda, Mentanda, Mpanga Forest.
- humilis* Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 89 (1930). Ruwenzori, Central Africa.
- alticornis* Jacobi, (variety), Wiss. Erg. Deut. Cent-Afrik. Exped. 1907-8, p. 35, fig. A, b-e (1912). Ruwenzori, Central Africa.

#### Planecornua

Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 90 (1930).

#### KEY TO SPECIES

One piceous pubescent species with two spots on the metopidium, stripe behind each suprähumerale, base of scutellum, and sides of chest, pubescent; scutellum slightly longer than broad; tegmina dark vinaceous, the base, median costal spot, and large spot behind clavus, dark brown; tarsi ferruginous yellow; 7-7.5 mm. .... *infractus*

#### LIST OF SPECIES

- infractus* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 122, pl. 2, fig. 5 (1910). Kilimanjaro, Kibonoto, East Africa.

#### Centrotus

Fabricius, Syst. Rhyng. p. 18 (1803); *Beaufortiana* Distant, Ann. Mag. N. H. xviii, p. 30 (1916).

#### KEY TO SPECIES

- 1(8). Posterior process emitted from high above the hind margin of pronotum, distant from the scutellum; suprähumerals subhorizontal, acuminate, tips decurved; pronotum black or brown.
- 2(7). Posterior process distinctly sinuate or undate, with a basal tooth or node more or less evident.
- 3(4). Posterior process moderately slender, strongly undate, basal node prominent; suprähumerals short, slender; basal half of tegmina fuscous, apical half decolored; 5 mm. .... *flagillifer*
- 4(3). Posterior process moderately sinuate, basal node slightly elevated.
- 5(6). Suprähumerals robust, transverse; posterior process robust on basal half, not impinging on the tegmina, apical area strongly decurved; tegmina reddish-fuscous; 8 mm. .... *serpentarius*

- 6(5). Suprumerals moderately slender, lightly inclined forward; posterior process moderately slender, impinging upon the tegmina behind apex of scutellum, apical area substraight; tegmina dark yellow, veins hairy; 8 mm. .... *subnodosus*
- 7(2). Posterior process slender, straight, base not dentate, not touching margins of tegmina; tegmina vitreous, a fascia behind clavus and middle of apical margin fuscous; 4–4.5 mm. .... *varipennis*
- 8(1). Posterior process emitted from near hind margin of pronotum, more or less curved at base and usually distinctly separated from the scutellum, then straight or substraight; suprumerals horizontal.
- 9(12). Apex of posterior process distinctly decurved; tegmina subhyaline, base black, apical area bronzy-brown.
- 10(11). Ochraceous; suprumerals broad, substraight, tips black margined, obliquely truncate and bicarinate; 8.5 mm. .... *laxatus*
- 11(10). Black, chest white, tomentose; suprumerals slender, ventrally carinate, tips recurved, acute; 7–8 mm. .... *bovinus*
- 12(9). Apex of posterior process substraight.
- 13(14). Posterior process impinging upon the scutellum, continued slightly above margins of tegmina; suprumerals broad, tips obliquely truncate, angulate posteriorly; tegmina pale bronzy, base black; 9–9.5 mm. .... *bantuensis*
- 14(13). Posterior process distinctly separated from the scutellum.
- 15(20). Black or brown; posterior process straight.
- 16(17). Black, a spot behind each suprumeral, basal angles of scutellum, and sides of chest, white pubescent; suprumerals medium; tegmina vinaceous, the base, costa, apex of clavus and spot behind it, fuscous; 5–7 mm. .... *quadripunctatus*
- 17(16). Dark- or reddish-brown.
- 18(19). Dark ferruginous-brown, tibiae and tarsi testaceous, sides of chest tomentose; suprumerals transverse, rather short and robust, tips acute; tegmina subhyaline, base brown; 8 mm. .... *shoanus*
- 19(18). Reddish-brown; suprumerals rather long, suboblique, tips recurved, acute; tegmina subhyaline, base ochraceous; 4–5.5 mm. .... *difficilis*
- 20(15). Ochraceous; posterior process moderately undulate, impinging upon margins of tegmina behind the scutellum; suprumerals broad, some narrowed to the obliquely truncate recurved tips; tegmina subhyaline, base black, apical area bronze; 6–7 mm. .... *rugosus*

#### LIST OF SPECIES

- flagillifer* Signoret, Thoms. Archiv. Ent. ii, p. 336, pl. 11, fig. 14 (1858). Calabar.
- varipennis* Buckton, Mon. Memb. p. 250, pl. 57, fig. 1 (1903). Calabar; Sagital, Usambara, Kwankarro, near Victoria Nyanza.
- minor* Buckton, Trans. Lin. Soc. Lond. ix, p. 335 (1905). Cameroons.

- serpentarius** Buckton, Trans. Lin. Soc. Lond. ix, p. 335, pl. 22, fig. 7 (1905).  
Cameroons.
- subnodosus** Jacobi, Wiss. Erg. Deut. Cent-Afrik. Exped. 1907-8, p. 35, pl. 3, fig. 13 (1912). Ruwenzori, Kiwu-Sea, Central Africa.
- varipennis** Signoret, Thoms., Archiv. Ent. ii, p. 337 (1858). Calabar.
- laxatus** Distant, Ann. Mag. N. H. xvii, p. 155 (1916). Durban, Natal.
- bovinus** Distant, Ann. Mag. N. H. xvii, p. 323 (1916). Kandunguru, Uganda, Mumias.
- bantuantus** Distant, Ins. Transv. i, p. 215, pl. 21, fig. 13 (1908). Waterburg, Pretoria, Transvaal; Durban, Natal; Umtali, Rhodesia.
- quadripunctatus** Stål, (♀), Ofv. K. Vet. Ak. For. p. 94 (1855). Caffraria, Natal.
- ? *hamifer* Walker, List Hom. B. M. Suppl. p. 159 (1858). Port Natal.
- spinicornis** Stål, (♂), Of. K. Vet. Ak. For. p. 95 (1855). Caffraria, Natal.
- shoanus** Distant, Ann. Mag. N. H. xvii, p. 323 (1916). Shoa, Abyssinia.
- difficilis** Distant, Ann. Mag. N. H. xviii, p. 31 (1916). Beaufort West, Cape Colony.
- cornuta** Distant, Ann. Mag. N. H. xviii, p. 31 (1916). Beaufort West, Cape Colony.
- rugosus** Buckton, Mon. Memb. p. 243, pl. 56, fig. 3 (1903). Kibotini, East Africa.
- marshalli** Distant, Ann. Mag. N. H. xvii, p. 154 (1916). Salisbury, Umfilii R., Mashonaland; Kibotini, East Africa.

### Tricoceps

Buckton, Mon. Memb. p. 249 (1903); *Tambusa* Distant, Ins. Transv. i, p. 216; *Tambusana* Distant, Ann. Mag. N. H. ix, p. 652 (1912).

#### KEY TO SPECIES

- 1(4). Black, not pubescent; suprumerals moderately long, horizontal, recurved; posterior process not thick at base; legs black.
- 3(3). Tegmina fuscoc-diaphanous, base and median spot on costa black; suprumerals lightly recurved, tricarinate above; apex of scutellum flat; 7 mm. .... **brunnicornis**
- 3(2). Tegmina bronzy-brown, base and a line on costa black, brown spot on posterior angle; suprumerals not carinate above, longer, stronger recurved; apex scutellum curved upward; 5-6 mm. .... **curvispina**
- 4(1). Pieceous or ferruginous, gray tomentose, body black, segmental margins of abdomen gray, tibiæ brown, tarsi yellow; suprumerals medium, transverse, tips slightly recurved, a carina above; posterior process thick at base; tegmina semiopaque, veins pubescent, a dark spot near apex of clavus, apical area brownish-yellow; 4.5-6 mm. .... **pubipennis**

## LIST OF SPECIES

- brunnipennis* Germar, Rev. Ent. Silb. iii, p. 257 (1835); Buckton, Mon. Memb. p. 249, pl. 56, fig. 8 (1903). Natal, Cape of Good Hope.
- curvispina* Distant, Ann. Mag. N. H. xvii, p. 322 (1916). Katanga, Kambove, Congo Free State.
- pubipennis* Fairmaire, Rev. Memb. p. 511 (1846); Distant, Ins. Transv. i, p. 216, pl. 21, fig. 17 (1908). Durban, Port Elizabeth, Natal; Caffraria; Cape of Good Hope.

**Centrotusoides**

Distant, Ann. Mag. N. H. xviii, p. 29 (1916).

## KEY TO SPECIES

- 1(2). Tips of suprumerals acuminate, recurved; 6.5 mm. .... *muiri*  
 2(1). Tips of suprumerals broadly truncate, not recurved; 6.5 mm. .... *wealdi*

## LIST OF SPECIES

- muiri* Distant, Ann. Mag. N. H. xviii, p. 30 (1916). Durban, Natal.  
*wealdi* Distant, Ann. Mag. N. H. xviii, p. 30 (1916). South Africa.

**Platybelus**

Stal, Hemip. Afrie. iv, p. 96 (1866).

## KEY TO SPECIES

- 1(6). Posterior process emitted high above the hind margin of pronotum, very distant from the scutellum; black or brown.
- 2(3). Dorsum of posterior process with a tooth at base; suprumerals twice longer than between their bases, slender, curved upward, outward and strongly backward, tips acute; tegmina fuscous-hyaline, hyaline spot behind apex of clavus; dark brown with white tomentose patches, tarsi yellowish; 6.5 mm. .... *albescens*
- 3(2). Dorsum of posterior process without a basal tooth, more or less touching margins of tegmina.
- 4(5). Suprumerals short, recurved, tips decurved; posterior process nearly long as tegmina, dorsum not serrate; tegmina brownish-ochraceous suffused with piceous-brown; legs brownish-yellow; thickly yellow pilose; 8 mm. .... *sinuosus*
- 5(4). Suprumerals medium, recurved, acuminate; posterior process robust at base, then slender, its dorsum finely serrate, the apex passing apex of clavus; tegmina subhyaline, basal area, broad central fascia and a narrow curved subapical fascia purplish-brown, apical margin yellow; legs piceous; 7 mm. .... *escalieranus*
- 6(1). Posterior process emitted from near hind margin of the pronotum, sinuate, separated but not strongly elevated from the body, its base oblique, not angulate.

- 7(8). Suprumerals broad, compressed, curved upward, slightly forward and outward, tips expanded, not acute; pronotum yellow, pubescent, chest brown; posterior process slender, slightly curved, near the abdomen; tegmina subhyaline, spot behind clavus and apex fuscous; 5 mm. .... *flavus*
- 8(7). Suprumerals gradually acuminate; brown or black.
- 9(12). Legs blackish-brown.
- 10(11). Tegmina yellow, basal and costal cells black; 7 mm. .... *gowdeyi*
- 11(10). Tegmina dark-yellow, base and spot near clavus castaneous, an obscure pale macular band behind middle; disk of pronotum with two pubescent lines; 7 mm. .... *africanus*
- 12(9). Legs black, tarsi yellow; suprumerals robust; posterior process robustly arched above scutellum, then slender impinging upon margins of tegmina; tegmina pale yellow, the base and costa black, a brown spot behind clavus; 5 mm. .... *insignis*

#### LIST OF SPECIES

- albescens* Funkhouser, An. Mus. Acad. Sci. USSR, xxviii, p. 146, pl. 5, fig. 2 (1927). Zanzibar.
- sinuosus* Distant, Ann. Mag. N. H. xvii, p. 155 (1916). Nyasaland.
- escalaranus* Distant, Ann. Mag. N. H. xvii, p. 324 (1916). Cameroons.
- flavus* Signoret, Thoms. Archiv. Ent. ii, p. 339 (1858). Calabar, Gabon.
- africanus* Distant, Ann. Mag. N. H. xvii, p. 325 (1916). Cameroons; Buamba Forest, Semliki Valley, Budongo Forest, Unyoro, Uganda.
- insignis* Distant, Ann. Mag. N. H. xvii, p. 326 (1916). Lake Nyassa, East Africa.

#### Evanchon

Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 40 (1930); *Maguva* Melichar and *Anchonoides* Distant (part).

#### KEY TO SPECIES

- One small black densely pubescent species with suprumerals thick, horizontal, short, quadricarinate, tips acute; posterior process slender, base curved high above the scutellum, shorter than the abdomen; tegmina smoky hyaline, base brown, spot at tip of costal cell and one behind clavus ferruginous; tarsi yellow; 5 mm. .... *minutus*

#### LIST OF SPECIES

- minutus* Funkhouser, Can. Ent. li, p. 221, pl. 19, figs. 3-4 (1919). Pretoria, Transvaal.

#### Amitrochates

Distant, Ann. Mag. N. H. xvii, p. 327 (1916).

#### KEY TO SPECIES

- One shining black species, margins of posterior process coarsely serrate, tegmina pale hyaline, basal area black; tibiæ and tarsi yellow, base of tibiæ black; abdomen gray; 7-7.5 mm. .... *grahami*

## LIST OF SPECIES

**grahami** Distant, Ann. Mag. N. H. xvii, p. 328, text fig. (1916). Ashanti, Obuasi, Aburi, Gold Coast.

**Barsumas**

Distant, Ann. Mag. N. H. xvii, p. 156 (1916).

## KEY TO SPECIES

One testaceous or brown species covered with spinules; suprumerals short, broad, slightly raised, margins serrate, tips abruptly acute; posterior process strongly bisinuate, broadened near middle, not near the tegmina, apex yellow; tegmina subhyaline with irregular markings and apical margin castaneous; 5 mm. .... **primus**

## LIST OF SPECIES

**primus** Distant, Ann. Mag. N. H. xvii, p. 156 (1916). Salisbury, Mashonaland.

*Uroxiphini***Uroxiphus**

Amyot and Serville, Hemip. p. 550 (1843).

## KEY TO SPECIES

- 1(2). Pronotum and legs black, scutellum yellow, apex black; tegmina ferruginous brown, line at base and claval spot yellow; base of head not tuberculate; 8 mm. .... **maculiscutum**
- 2(1). Pronotum ferruginous, scabrous, two basal impressions; scutellum ferruginous, body black, tibiae and tarsi paler; tegmina ferruginous; head black, elongate tubercle each side at base; 6 mm. .... **simplex**

## LIST OF SPECIES

**maculiscutum** Amyot and Serville, Hemip. p. 550, pl. 12, fig. 9 (1843). Senegal.

**simplex** Walker, Ins. Saund. Hom. p. 78 (1858). Cape Colony.

**Melicharella**

Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 40 (1930); *Machærotypus* Meliehar, Hom. Ceylon, p. 125 (1903).

## KEY TO SPECIES

- 1(2). Bluish black, abdomen black segmental margins paler, legs reddish, body pubescent; tegmina reddish brown, base piceous; ocelli near eyes; 8 mm. .... **montana**
- 2(1). Ferruginous or black, slightly pubescent, legs ferruginous; tegmina decolored, base pale yellow, rarely an obsolete suprumerital tubercle; 4.5 mm. .... **albibennis**

## LIST OF SPECIES

- montana** Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 120 (1910). Meru, Usambara, Nguelo, Kilimanjaro, Kimbonoto, Kiboscho, E. Africa.
- albipennis** Stål, Hemip. Afrie. iv, p. 89 (1866). Caffraria, S. Africa.

**Awania**

Distant, Trans. Ent. Soc. Lond. (3), iii, p. 518 (1914).

## KEY TO SPECIES

- 1(4). Basal margin of pronotum not produced above the head, posterior process well elevated above the scutellum not touching tegmina, slender beyond base; ocelli equidistant no carina between.
- 2(3). Pronotum and legs black, middle tibiæ and base of tarsi pale brown; tegmina pale ochraceous; posterior process concavely sinuate; 7 mm. .... **typica**
- 3(2). Pronotum and legs piceous brown, hind tarsi yellowish; tegmina hyaline, cells brown clouded; posterior process straight; 8 mm. .... **bigibbosa**
- 4(1). Basal margin of pronotum produced above the head, two smooth spots above eyes; posterior process very slender from extreme base, lightly sinuate, slightly arched above scutellum touching tegmina beyond; tegmina vinaceous hyaline; pronotum and legs black; ocelli nearer to eyes a longitudinal carina between; 7 mm. .... **vicina**

## LIST OF SPECIES

- typica** Distant, Trans. Ent. Soc. Lond. (3), iii, p. 518 (1914). Oni near Lagos, Ashantee, W. Africa.
- bigibbosa** Schmidt, Stet. Ent. Zeit. lxxii, p. 276 (1911). Buea, Cameroons.
- vicina** Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 30 (1930). Gombari, French Congo.

**Demanga**

Distant, Faun. Brit. Ind. iv, p. 69 (1908).

## KEY TO SPECIES

- 1(2). Entirely shining black; tegmina bronzy brown, extreme base black with transverse yellow macular fascia, costal area piceous; 6.5 mm. .... **deflectens**
- 2(1). Shining black, scutellum yellow base brown, tarsi brown hind tarsi yellowish, margins abdominal segments pale; tegmina hyaline, base opaque brown, central area whitish transparent, apical third brown clouded, spot in elavus and in corium yellow; 7.5-9 mm. .... **occidentalis**

## LIST OF SPECIES

- deflectens** Distant, Ann. Mag. N. H. xvi, p. 494 (1915). Njaro Narok, Kenya, Ruanda, Nyeri Road, E. Africa.

**occidentalis** Schmidt, Stet. Ent. Zeit. lxxii, p. 275 (1911). Bolama, Rio Cassini, Portuguese Guinea, W. Africa.

*Leptocentrini*

**Xiphopoeus**

Stal, Hemip. Afric. iv, p. 91 (1866); *Kleidos* Buckton, Mon. Memb. p. 214 (1903).

KEY TO SPECIES

- 1(8). Basal angle of posterior process uni- or bidentate.
- 2(3). Basal angle of posterior process bidentate; suprumerals nearly erect, straight, robust, tips ampliated, angularly truncate and bifid; tegmina pale fuscous; 9 mm. .... **vomeris**
- 3(2). Basal angle of posterior process unidentate; suprumerals nearly erect, tips usually ampliated.
- 4(5). Suprumerals moderately slender on basal half, apical half strongly curved backward, tips trispinose; apical third posterior process concavely curved backwards gradually acuminate; tegmina gray hyaline, tips fuscous spotted, apical angle obtuse; 7 mm. .... **phantasma**
- 5(4). Suprumerals robust, heavy.
- 6(7). Suprumerals strongly obliquely divaricate, a carina behind each, tips ampliated, flat, recurved; posterior process more nearly straight, apical area more slender; tegmina sordid hyaline, veins rough, apical area fuscous spotted; tibiæ and tarsi yellowish; 7 mm. .... **validicornis**
- 7(6). Suprumerals nearly erect, slightly diverging, tips not or slightly broadened and obliquely truncate, not recurved; posterior process strongly convex, broad nearly to apex; tegmina dark brown, tips rufous; legs black; 9 mm. .... **palmatus**
- 8(1). Basal angle of posterior process without an anterior tooth.
- 9(10). Suprumerals obliquely erect, inwardly coarsely serrate, tips broadened, flat, bispinous; 6.5 mm. .... **erectus**
- 10(9). Suprumerals slightly elevated, nearly transverse, tips depressed, flat, triangular, tridentate, recurved; 7-8 mm. .... **horridulus**

LIST OF SPECIES

**vomeris** Buckton, Mon. Memb. p. 214, pl. 48, fig. 2 (1903). Calabar.

**phantasma** Signoret, Thoms. Archiv. Ent. ii, p. 328, pl. 11, fig. 13 (1858). Calabar; Albert-Sea, Kassenque, Congo Free State.

**validicornis** Stål, Ofv. Vet. Ak. Forh. p. 95 (1855). Caffraria, Natal.

**palmatus** Buckton, Trans. Linn. Soc. Lond. Zool. ix, p. 333 (1905). Zanzibar.

**vomeris** Melichar, Wein Ent. Xeit. xxiv, p. 296 (1905). Tanga, Bomole, Usambara, E. Africa.

**erectus** Distant Ann. Mag. N. H. xvii, p. 152 (1916). Kafu R., Kampala Road, Hoima, Lake Isolt, Uganda.

**horridulus** Walker, List Hom. B. M. p. 605 (1851); Distant, Ins. Transv. i, p. 215, pl. 21, fig. 10 (1908). Natal, Caffraria; Buzi R., Gazaland, Rhodesia.

### Euxiphopœus

Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 91 (1930); *Xiphopœus* section *aa*, Stål, Hemip. Afric. iv, p. 92 (1866).

#### KEY TO SPECIES

- 1(2). Posterior process long as abdomen; suprumerals not tuberculate; veins of tegmina nodulate; 6 mm. .... *geniculatus*
- 2(1). Posterior process nearly long as tegmina; suprumerals covered with tubercles; veins of tegmina smooth; 5 mm. .... *hirculus*

#### LIST OF SPECIES

*geniculatus* Stål, Hemip. Afric. iv, p. 92 (1866). Sierra Leone, W. Africa.  
*hirculus* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 121, pl. 2, fig. 8 (1910). Kilimanjaro, Kibonoto, E. Africa.

### Leptocentrus

Stål, Hemip. Afric. iv, p. 86 (1866); *Rabduchus* Buckton, Mon. Memb. p. 251; *Bocchar* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 120 (1910), (part).

#### KEY TO SPECIES

- 1(22). Apex of posterior process far passing apex of clavus.
- 2(15). Suprumerals horizontal or subhorizontal.
- 3(14). Pronotum blue black or black; suprumerals short, slender; posterior process straight from basal curve.
- 4(7). Entirely blue black, yellow pubescent; median carina weak; suprumerals shorter than intermediate space, slender.
- 5(6). Disk of pronotum moderately elevated, base of posterior process slightly convex; abdomen black, segmental margins pale; tegmina vinaceous, smoky spot behind clavus; 7.5-8.5 mm. *montanus*
- 6(5). Disk of pronotum robustly raised, base of posterior process strongly convex; abdomen blue black; tegmina subhyaline, base brown, apical margin bronzy yellow; 7 x 4 mm. .... *thelwalli*
- 7(4). Entirely black.
- 8(13). Posterior process distant from and its tip only touching margins of tegmina.
- 9(12). Suprumerals directed outwardly, tips slightly recurved.
- 10(11). Metopidium vertical; yellow pubescent; tegmina pale lurid, base black; 7.5-9.5 mm. .... *altilfrons*
- 11(10). Metopidium obliquely convex, highest posteriorly; slightly pubescent; tegmina ferruginous hyaline; 7-10 x 3-4 mm. .... *lama*
- 12(9). Suprumerals directed backwardly, straight; not pubescent; tegmina subhyaline pale brownish yellow, large ochraceous basal spot; 7-7.5 x 5 mm. .... *aureomaculatus*

- 13(8). Posterior process distinctly sinuate, moderately distant from, and its decurved apical half impinging upon margins of tegmina, a small node at base; suprumerals recurved, upper surface carinate; tegmina vinaceous, exterior half for three-fourths the length chestnut brown; 10 mm. .... *limbipennis*
- 14(3). Castaneous brown; suprumerals broad, robust with strong median carina; posterior process moderately sinuate; tegmina pale bronzy brown, base brown, then a transverse pale yellow macular fascia; 9-10 x 5-6 mm. .... *grossus*
- 15(2). Suprumerals oblique.
- 16(21). Expanse of suprumerals equal to about one-half total length to tips of tegmina.
- 17(20). Black; suprumerals moderately oblique.
- 18(19). Tegmina colorless hyaline, basal fourth black, opaque, punctate, an obsolete yellow cloud on exterior margin toward tips, veins black, hairy; exterior vein of clavus straight to obtuse apex; wings with four apical cells. Entirely black, densely coarsely punctate with fine pale pubescence; tarsi yellowish brown. Head densely pubescent, base sinuate, ocelli large, prominent, nearer to and even with center of eyes; apical margin transverse, clypeus almost wholly extended below, tip obtuse. Pronotum well elevated, metopidium vertical slightly convex at apex; humerals large, conicale, acute; suprumerals robust at base, gradually acuminate, concavely curved upward, several weak carinæ on apical area, apical half recurved; posterior process about even with and continuous with disk of pronotum, not convexly elevated, sinuous, tricarinate, apical third impinging upon margins of tegmina to the apex of fifth apical cell. Scutellum long as broad, quadrate, apex crenate. Type, female, 10 x 6 mm. from Arebi, Africa. An example from Dungu, Africa is mutilated.
- arebiensis*, n. sp.
- 19(18). Tegmina bronzy brown, a large fasciate subapical ochraceous spot, base, costal area and apical margin black; ocelli nearer to and even with upper margins of eyes; suprumerals medium, convexly recurved, with a strong central carina; entirely black; 8.5-9 x 4.5-5 mm. .... *ugandensis*
- 20(17). Dark brown; suprumerals strongly oblique, nearly erect, straight; tegmina brown, a large reddish yellow spot on apical area; 8 x 4 mm. .... *rufipennis*
- 21(16). Expanse of suprumerals equal to the total length to tips of tegmina, roundly curved, tips carinate, recurved; black, tarsi testaceous; tegmina pale brownish yellow; 9 x 9 mm. .... *peracatus*
- 22(1). Apex of posterior process not or slightly passing apex of clavus; suprumerals short, medium, horizontal; chest tomentose.
- 23(24). Shining blue black; ocelli widely separated; abdomen black, margins paler, tibiae and tarsi reddish brown; suprumerals

- very short; tegmina reddish brown, base piceous brown, veinless apical margin smoky; 7.5 mm. .... *confusus*  
 24(23). Black or piceous, tibiae ochraceous; suprumerals medium short, tips recurved; tegmina pale bronzy brown, base reddish; 5.5–6 x 3–3.5 mm. .... *australis*

#### LIST OF SPECIES

- montanus* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905–6, Hom. p. 120 (1910). Usambara, Nguelo, Kilimanjaro, Kibonoto, Meru, E. Africa.
- thelwalli* Distant, Ann. Mag. N. H. xviii, p. 24 (1916). Nyasaland.
- altifrons* Walker, List Hom. B. M. p. 608 (1851). Congo, Cameroons, Lagos, W. Africa; Uganda, Ruwenzori, Kafu R., Hoima, Kampala Road, Amani, Sagital, E. Africa.
- atratus* Walker, List Hom. B. M. p. 624 (1851). Sierra Leone.
- bos* Signoret, Thoms. Arch. Ent. ii, p. 336 (1858). Calabar, Gabon, Congo.
- gnomen* Buckton, Mon. Memb. p. 251, pl. 57, fig. 4. Old Calabar, Cameroons.
- lama* Signoret, Thoms. Arch. Ent. ii, p. 338 (1958). Calabar, Cameroons.
- areomaculatus* Distant, Ann. Mag. N. H. xvii, p. 315 (1916). Uganda, Kafu R., Unyoro, Kampala Road, Ankole-Toro Border.
- limbipennis* Jacobi, Wiss. Erg. Deut. Cent. Afrie. Exped. 1907–8, p. 34, pl. 3, fig. 12 (1912). Ruwenzori, Kwidjwi, E. Africa.
- grossus* Distant, Ann. Mag. N. H. xvii, p. 315 (1916). Uganda, Entebbe Forest, Buamba Forest, Semliki Valley, Takalu, E. Africa.
- arebiensis* Goding, new species, (in this paper, *supra*). Arebi, Dungu, N-W Congo.
- ugandensis* Distant, Ann. ag. N. H. xvii, p. 151 (1916). Uganda, Entebbe Forest, Toro, Mbarara, Lake George, Arebi, Takalu, E. Africa.
- rufipennis* Buckton, Trans. Linn. Soc. Lond. Zool. ix, p. 334, pl. 22, fig. 8 (1905). Cameroons.
- peracatus* Distant, Ann. Mag. N. H. xvii, p. 151 (1916). Somaliland, N-E Africa.
- confusus* Distant, Ann. Mag. N. H. xvii, p. 151 (1916). Cameroons; Kenya, Meru-Nyeri. Road, Aberdare Mts., E. Africa.
- leucaspis* Meliehar, Wein. Ent. Zeit. xxiv, p. 295 (1905). Amani, E. Africa.
- montana* Jacobi, (variety), Sjost. Zool. Kil-Meru Exped. II, 1905–6. Hom. p. 120, pl. 2, fig. 2 (1910). Usambara, Nguelo, Kilimanjaro, Meru, Kibonoto, Kiboscho, E. Africa.
- australis* Distant, Ann. Mag. N. H. xviii, p. 24 (1916). Malvern, Natal.

#### Dacaratha

Distant, Ann. Mag. N. H. xvii, p. 319 (1916).

## KEY TO SPECIES

One black species, tibiæ and tarsi castaneous; suprumerals short, obliquely angulate directed backward; posterior process convexly elevated above the scutellum, straight, touching the tegmina, which are subhyaline, base black, outwardly margined with ochraceous, apical area testaceous; 7 mm. .... **nyasana**

## LIST OF SPECIES

**nyasana** Distant, Ann. Mag. N. H. xvii, p. 319 (1916). Lake Nyassa, East Africa.

**Tshaka**

Distant, Ins. Transv. i, p. 214, pl. 22, fig. 3 (1908).

## KEY TO SPECIES

- 1(4). Suprumerals short, transverse, robust, straight, tips slightly recurved; posterior process undulate; pronotum black, tegmina yellowish, base, spot on costa and one behind clavus, piecous, tarsi pale.
- 2(3). Apical veins of tegmina granulose; 6.5 x 3.5 mm. .... **naturalis**
- 3(2). Apical veins of tegmina smooth; 5 x 4 mm. .... **undulatus**
- 4(1). Suprumerals long, transverse, strongly curved; pronotum black, tegmina as in (4), tarsi yellow; 4.5-5 x 2-3.5 mm. .... **obortus**

## LIST OF SPECIES

**naturalis** Distant, Ins. Transv. i, p. 214, pl. 22, fig. 4 (1908). Lydenburg, Transvaal.

**undulatus** Distant, Ann. Mag. N. H. xvii, p. 324 (1916). Salisbury, Mashonaland.

**obortus** Distant, Ann. Mag. N. H. xviii, p. 42 (1916). Pretoria, Transvaal.

**Otinotus**

Buckton, Mon. Memb. p. 232 (1903).

## KEY TO SPECIES

- 1(8). Suprumerals short, robust, broad, prismatic, slightly oblique, acuminate, tips lightly recurved.
- 2(7). Posterior process slender, weakly sinuate; pronotum brown or black, tomentose or pilose.
- 3(4). Length 7 mm.; suprumerals oblique, front margin strongly curved, hind margin straight; posterior process distinctly undulating; tegmina brown, veins hairy; tarsi yellow ..... **griseus**
- 4(3). Length 8 to 10 mm.; posterior process weakly sinuate.
- 5(6). Posterior process impinging upon scutellum and tegmina, tip black; front margin of suprumerals curved, hind margin straight; tegmina hyaline, apical angle acute; pronotum brown; 9 mm. .... **pilosus**

- 6(5). Posterior process elevated above scutellum and tegmina; suprumerals distinctly recurved; pronotum black, tegmina brown, broad transverse ochraceous fascia near base; 10 mm. ....*recurvus*
- 7(2). Posterior process heavy, strongly arcuate, base slightly elevated above the scutellum, apical half impinging upon the tegmina, the latter hyaline; ferruginous-brown; 8 mm. ....*arcuatus*
- 8(1). Suprumerals slender; pronotum black.
- 9(10). Suprumerals horizontal, slightly elevated, with a central carina; posterior process slightly elevated above scutellum, then impinging upon the tegmina which are pale brown an obscure ochraceous transverse fascia; 8-9 mm. ....*nigrorufus*
- 10(9). Suprumerals weakly oblique, strongly recurved; apical area of posterior process impinging upon the tegmina which are as in 9(10); 8-9 mm. ....*curvidens*

#### LIST OF SPECIES

- griseus* Melichar, Wien, Ent. Zet. xxiv, p. 295 (1905). Bomole, Amani, E. Africa.
- pilosus* Funkhouser, Can. Ent. li, p. 222, pl. 19, figs. 5-6 (1919). German East Africa.
- recurvus* Distant, Ann. Mag. N. H. xvii, p. 154 (1916). Entebbe, Lake Isolt, Wamala, Uganda.
- arcuatus* Funkhouser, Can. Ent. li, p. 222, pl. 19, figs. 7-8 (1919). Pretoria, Transvaal.
- nigrorufus* Distant, Ann. Mag. N. H. xvii, p. 153 (1916). Masinde, Uganda; Eastern Mbale, Elgon; Mpanga Forest, Toro; Mabiri Forest, Chagwe; Kafu R., Hoima; Kampala Road, Jinja and Busia, East Busoga; Entebbe, East Africa.
- curvidens* Distant, Ann. Mag. N. H. xvii, p. 154 (1916). Cameroons; Entebbe, Lake Isolt, Wamala, East Africa.

#### *Centruchus*

Stål, Hemip. Afric. iv, p. 93 (1866); *Leucothorax* Buckton, Trans. Linn. Soc. Lond. ix, Zool. p. 334 (1905).

#### KEY TO SPECIES

- 1(2). Suprumerals short, stout, triquetrous, horizontal, tips acute; pronotum ferruginous to black, slightly pubescent beneath; median carina weak; tegmina fusco-hyaline; legs ferruginous; 10 mm. ....*capensis*
- 2(1). Suprumerals longer, prismatic, horizontal, tips truncate; sides of chest densely pubescent; median carina strong; tips of tibiæ and tarsi yellow.
- 3(4). Black; upper surface of suprumerals with a carina near hind margin; scutellum smooth, apex yellow; tegmina lightly infuscate; 8 mm. ....*fuscipennis*

- 4(3). Dark shining brown, sides of chest with broad shaggy pubescence, basal angles of scutellum pubescent; tegmina fuscous, shining; 12 mm. .... *villosus*

#### LIST OF SPECIES

- capensis* Germar, Rev. Ent. Silb. iii, p. 256 (1835). Cape of Good Hope.  
*fuscipennis* Germar, Rev. Ent. Silb. iii, p. 256 (1835). Cape Colony, Caffraria. Bomole, East Africa; Albert-Sea, Undussuma, Congo Free State.  
*pacificus* Gerstaecker, Deck. Reis. Ost-Afrik. ii, p. 430 (1873). Mombas, East Africa.  
*villosus* Buckton, Trans. Linn. Soc. Lond. ix, p. 334, pl. 22, fig. 5 (1905). Cameroons.

#### *Hypsauchenini*

##### **Congellana**

Distant, Ins. Transvaal, i, p. 213 (1908).

#### KEY TO SPECIES

- 1(4). Basal angle of posterior process with an anterior tooth; tarsi yellow.  
 2(3). Tegmina black; pronotum, body and legs black, pubescent; 9-10 mm. .... *electa*  
 3(2). Tegmina shining yellow, apical margin, interior half of corium, and spot on costa, fuscous; pronotum dark-brown, an oblique white line from hind margin extends on front process; tibiae yellow; 9 mm. .... *strigata*  
 4(1). Basal angle of posterior process without a tooth, (the horizontal part of the posterior process wanting in the type); castaneous, legs paler; tegmina brownish-ochraceous, tip of costal darker, pale spot on inner margin; 7 mm. .... *leighi*

#### LIST OF SPECIES

- electa* Melichar, Wein. Ent. Zeit. xxiv, p. 296 (1905). Amani, Usambara, Lake Victoria Nyanza, Kwankorro, East Africa.  
*strigata* Buckton, Trans. Linn. Soc. Lond. ix, p. 333, pl. 22, fig. 3 (1905). Cameroons.  
*leighi* Distant, Ins. Transv. i, p. 213, pl. 21, fig. 21 (1908). Congellana, Durban, Natal.

#### *Centrocharesini*

##### **Negus**

Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 121 (1910).

#### KEY TO SPECIES

- One black species covered with bristle-bearing nodules; suprakumerals short, broad, oblique, compressed, almost foliaceous, tips truncate, slightly

broader than bases; posterior process triquetrous, with a basal and subapical node, slightly separated from the scutellum and impinging upon margins of tegmina, rather narrow; tegmina smoky-hyaline, base and spot on costa black, veins yellow, covered with hairy nodules; 6 mm. .... **asper**

#### LIST OF SPECIES

**asper** Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 121, pl. 2, fig. 9 (1910). Kilimanjaro, Kibonoto, East Africa.

#### MEMBRACINÆ

*Xiphistesini*

#### *Xiphistoides*

Goding, Ann. Ent. Soc. Am. xxiv, p. 936, (1931); *xiphidia* Goding, Jour. N. Y. Ent. Soc. xxxviii, p. 92 (1930).

#### KEY TO SPECIES

- 1(2) Pronotum tumid, fuscous marked with black, a small tubercle above each humeral; posterior process slender, apical area compressed a keeled appendage beneath not serrate; tegmina hyaline, costa fuscous; 5 mm. .... **inermis**
- 2(1). Pronotum convex, brown, base slightly projecting, a short carina above each humeral, dorsal line straight; posterior process slender, straight, apex obtuse, not keeled beneath; tegmina hyaline, base yellowish, veins with brown nodules; 7 mm. .... **carinata**

#### LIST OF SPECIES

**inermis** Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 119, pl. 2, fig. 7 (1910). Kilimanjaro, Kibonoto, East Africa.

**carinata** Funkhouser, An. Mus. Acad. Sci. USSR, xxviii, p. 147, pl. 5, fig. 3 (1927). Buddu Forest, Itara, Victoria Nyanza.

#### *Gongroneura*

Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 120 (1910); *Pedalion* Buckton, Mon. Memb. p. 251 (1903).

#### KEY TO SPECIES

- 1(4). Veins of tegmina distinctly nodulate.
- 2(3). Suprumerals very short, horizontal, tips obtuse and not elevated above disk of pronotum; yellow brown, disk of pronotum, sides and apex posterior process, body and legs blackish; tegmina hyaline, base, nodes on veins, and spot near apex clavus black; 6-7 mm. .... **brevicornis**
- 3(2). Suprumerals about as long as the intermediate space, oblique, tips truncate and distinctly higher than disk of pronotum; ferruginous brown; tegmina hyaline; apex of the posterior process briefly elevated; 7 mm. .... **confusa**

- 4(1). Veins of tegmina destitute of nodules.  
 5(8). Posterior process nearly long as tegmina; suprumerals oblique, tips seen from the front truncate; brown.  
 6(7). Tegmina brown and ochreous mottled; 5-6 x 3-5 mm. .... *triste*  
 7(6). Tegmina hyaline, veins curved and yellow with brown punctures; 6 x 3 mm. .... *ornata*  
 8(5). Posterior process distinctly shorter than tegmina; suprumerals variable in length, seen from the front briefly acute, seen from the side truncate; ochreous, dorsal nodes and apex posterior process blackish; tegmina hyaline, one or two indistinct transverse fasciae and costal dots brown; 7-8 x 4 mm. .... *delalandei*

#### LIST OF SPECIES

- brevicornis* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 120, pl. 2, fig. 3 (1910). Kilimanjaro, Kibonoto, E. Africa.  
*confusa* Distant, Ann. Mag. N. H. xviii, p. 23 (1916). Pretoria, Transvaal, Natal, Cape Colony, S. Africa.  
*delalandei* Jacobi, Sjost. Zool. Kil-Meru Exped. II, 1905-6, Hom. p. 119, pl. 2, fig. 1, 10 (1910). Mombo, Usambara, E. Africa.  
*triste* Buckton, Mon. Memb. p. 252, pl. 57, fig. 5 (1903). Cameroons, W. Africa.  
*delalandei* Buckton, Mon. Memb. p. 252, pl. 57, fig. 7 (1903); Distant, Ins. Transvaal, i, p. 212, pl. 21, fig. 15 (1908). Natal, Cape Colony, Pretoria, Transvaal; Mashonaland, S. Africa.  
*fasciatum* Buckton, Mon. Memb. p. 253, pl. 60, fig. 8 (1903). Cape Colony, Mashonaland, S. Africa.  
*punctipennis* Buckton, Mon. Memb. p. 253, pl. 57, fig. 8 (1903). Cape Colony.

#### Xiphistes

Stål, Hemip. Afric. iv, p. 85 (1866); *Neoxiphistes* Distant, Trand. Ent. Soc. Lond. (3), iii, p. 515 (1914).

#### KEY TO SPECIES

- 1(10). Apex of posterior process subreaching or passing tips of tegmina.  
 2(7). Suprumerals long, porrect or strongly inclined forward; pubescent.  
 3(4). Suprumerals parallel, medium slender, slightly approaching, tips acute outwardly; posterior process concavely sinuate, apical area elevated dentate beneath; brown, tegmina hyaline; 5 mm. .... *longicornis*  
 4(3). Suprumerals broad, slightly diverging; posterior process subequal to tegmina in length, the latter sordid hyaline.  
 5(6). Posterior process concavely sinuate, apical area elevated, serrate beneath; black; 8-9 mm. .... *vetusta*  
 6(5). Posterior process straight, apical area decurved, not serrate beneath; ferruginous, head black, a denticle beneath each eye; 7-8 mm. .... *sulcicornis*

- 7(2). Suprumerals long, oblique or subhorizontal; tegmina hyaline.
- 8(9). Posterior process much longer than the tegmina, apical half brown; suprumerals robust, oblique, long as width of pronotum, tips brown; piceous, median carina brown; 8-10. .... *lagoensis*
- 9(8). Posterior process slender, long as tegmina; suprumerals long as pronotum behind them, slender, subhorizontal, tips depressed; posterior process slender, long as tegmina, apex depressed; form elongate, pale brownish-ochraceous; 7.5 mm. .... *attenuata*
- 10(1). Posterior distinctly shorter than the tegmina.
- 11(18). Suprumerals very short, not longer than half the width of pronotum.
- 12(13). Suprumerals moderately inclined forward, oblique, tips obtuse; brownish-testaceous, tegmina subhyaline; 7.5-8 mm. .... *concolor*
- 13(12). Suprumerals oblique or transverse, not inclined forward.
- 14(15). Suprumerals reduced to two strong obtuse tubercles directed upward; brownish-ochraceous, tegmina vinaceous hyaline; 7 mm. .... *tuberculatus*
- 15(14). Suprumerals distinctly produced, acuminate; pubescent.
- 16(17). Fuscous-black; slightly obliquely elevated; tegmina subhyaline; 7 mm. .... *furcicornis*
- 17(16). Dull, ochraceous; suprumerals subhorizontal; tegmina narrowly opaque, base and veins (not apical veins) granulose; 5.5 mm. .... *exigua*
- 18(11). Suprumerals at least longer than width of the pronotum.
- 19(24). Suprumerals moderately inclined forward.
- 20(23). Suprumerals slightly diverging, robust, tips acute; tegmina lurid; pubescent.
- 21(22). Suprumerals twice longer than width between bases, strongly compressed, very broad; pronotum ferruginous, low in front; tegmina ferruginous at base with whitish band; 9 mm. .... *dilaticornis*
- 22(21). Suprumerals thrice longer than width between bases, prismatic, conical; pronotum piceous, rather high in front; posterior process lightly curved upward; tegmina tawny at base; 6 mm. .... *suberecta*
- 23(20). Suprumerals moderately slender, subhorizontal, tips truncate; posterior process sinuous, free above abdomen; black, pubescent, tegmina smoky-hyaline; 8 mm. .... *tanganensis*
- 24(19). Suprumerals very robust, transversely oblique, tips truncate; posterior process slender, rugulose, serrate beneath, apex recurved; fuscous-brown, tegmina subhyaline, brown spot near apex of clavus; 8.5 mm. .... *crassicornis*

#### LIST OF SPECIES

**longicornis** Distant, Ins. Transv. i, p. 212, pl. 21, fig. 20 (1908). Melsetter, Gazaland, Rhodesia.

**vetusta** Walker, List Hom. B. M. p. 507 (1851). Natal.

- latipes* Buckton, Mon. Memb. p. 253, pl. 58, fig. 1 (1903). Natal.
- sulcicornis* Thunberg, Hemip. Rostr. cap. i, p. 2 (1822). Cape Colony, Caffraria, Pretoria, Transvaal, Delagoa Bay, Umtali, Rhodesia, Melsetta, Gazaland.
- parallela* Walker, List Hom. B. M. p. 508 (1851). Natal.
- decisus* Buckton, Mon. Memb. p. 226, pl. 50, fig. 1 (1903). Delagoa Bay.
- pallidus* Buckton, Mon. Memb. p. 227, pl. 50, fig. 5 (1903). Unknown.
- lagoensis* Distant, Trans. Ent. Soc. Lond. (3), iii, p. 515 (1914). Oni Lagos, N. Nigeria.
- attenuata* Distant, Ann. Mag. N. H. xvi, p. 324 (1915). Lesapi R., Mashonaland.
- concolor* Buckton, Mon. Memb. p. 224, pl. 49, fig. 4 (1903); Distant, Ins. Transv. i, p. 210, pl. 22, fig. 1 (1908). Pretoria, Transvaal, Cape Colony, Umtali, Rhodesia.
- crassus* Distant, Ann. Mag. N. H. xvii, p. 313 (1916). Salisbury, Mashonaland.
- tuberculatus* Walker, Ins. Saund. Hom. p. 109 (1858); Distant, Ins. Transv. i, p. 210, pl. 21, fig. 14 (1908). Cape Colony, Pretoria, Transvaal, Umfuli R., Mashonaland, Umtali, Rhodesia.
- furcicornis* Germar, Rev. Ent. Silb. iii, p. 232 (1835); Distant, Ins. Transv. i, p. 210, pl. 21, fig. 12 (1908). Cape Colony, Pretoria, Transvaal, Umfuli R., Mashonaland.
- tarandus* Buckton, Mon. Memb. p. 233, 49, fig. 3 (1903). Cape Colony.
- nodosus* Buckton, Mon. Memb. p. 226, pl. 50, fig. 4 (1903). Grahams-town, Cape Colony.
- exigua* Buckton, Mon. Memb. p. 232, pl. 52, fig. 5 (1903); Distant, Ins. Transv. i, p. 211, pl. 22, fig. 3 (1908). Natal.

### Oxyrhachisini

There has been recognized but one genus in this tribe from Africa.

### Oxyrhachis

- Germar, Rev. Ent. Silb. iii, p. 232 (1835); *Polocentrus* Buckton, Mon. Memb. p. 253 (1903); *Ouranorthus* Buckton, Trans. Linn. Soc. Lond. ix., p. 333 (1905).

#### KEY TO SPECIES

- 1(10). Posterior process longer than tegmina, apex elevated.
- 2(5). Suprumerals subhorizontal; tegmina dull hyaline.
- 3(4). Inferior margin of posterior process serrate, apical area compressed; ferruginous or fuscous, base of tegmina narrowly pale ferruginous; 7-8 mm. .... *tarandus*
- 4(3). Inferior margin of posterior process smooth, not serrate, base ochraceous, apical half blackish, attenuated; piceous brown, carinæ paler, base and costal margin of tegmina and spot behind clavus piceous; 6 mm. .... *lamborni*

- 5(2). Suprathumeral strongly oblique or nearly erect; inferior margin of posterior process more or less distinctly serrate.
- 6(9). Suprathumeral directed upward, nearly erect.
- 7(8). Brown, pilose; tips of suprathumeral acute; apical area of posterior process blackish, median carina pale; tegmina hyaline, black spot behind clavus; 6-7 mm. .... *bisenta*
- 8(7). Yellow; tips of suprathumeral truncate; apical area of posterior process compressed; tegmina vinaceous hyaline; 8 mm.  
..... *caudatus*
- 9(6). Suprathumeral oblique, margins and apical areas testaceous, tips acute, piceous; median carina and legs testaceous; tegmina hyaline, base blackish; 8 mm. .... *pandatus*
- 10(1). Posterior process not longer than the tegmina.
- 11(24). Apex of posterior process reaching tips of the tegmina.
- 12(17). Inferior margin of the posterior process serrate.
- 13(16). Suprathumeral subhorizontal; apical area of posterior process elevated.
- 14(15). Ferruginous-brown; suprathumeral short, thick, tips truncate, carinae and tips paler; posterior process with a blackish gibba at middle; tegmina vitreous, base yellow, black spot behind the clavus; 7 mm. .... *delalandei*
- 15(14). Piceous, pubescent, pronotum partly ferruginous; suprathumeral very broad, acute; posterior process lightly bisinuate, apical area compressed, black; tegmina lurid, basal half of costa black, apical half ferruginous; 8 mm. .... *subseratus*
- 16(13). Suprathumeral short, almost erect, slightly diverging, tips acute; posterior process substraight, apical area compressed; ferruginous or fuscous, tegmina vitreous; 7 mm. .... *gambiae*
- 17(12). Inferior margin of posterior process not serrate; suprathumeral subhorizontal.
- 18(19). Base of posterior process with a gibba, apical area compressed; piceous, not pubescent, median carina reddish spreading around the gibba; base of tegmina black, costa reddish, black spot behind clavus; tibiae yellow, tarsi brown; 10 mm. .... *gibbulus*
- 19(18). Base of posterior process not gibbous.
- 20(23). Black, pubescent, with reddish markings; posterior process almost horizontal, apical area not compressed; tegmina subhyaline.
- 21(22). Basal half of posterior process sanguineous, legs black; tips of the robust broad suprathumeral obtusely angulate; 7 mm. .... *egyptianus*
- 22(21). Posterior process concolorous, slightly tapering to apex; suprathumeral short, thick, tips acute; 6-7 mm. .... *tenebrosus*
- 23(20). Pale testaceous Metopidium, apical half of posterior process, two fasciae on pronotal disk, and face, black; suprathumeral short, broad acute; posterior process lightly concave; tegmina hyaline, black spot behind clavus; 5 mm. .... *nigropictus*

- 24(11). Apex of posterior process not reaching tips of tegmina, elevated, compressed, inferior margin serrate; suprumerals very short, subhorizontal, acute; orange-yellow fuscous mottled, metopidium brown; cells of tegmina yellow, veins brown; 8 mm. .... *labatus*

#### LIST OF SPECIES

- tarandus** Fabricius, Ent. Syst. Suppl. p. 514 (1796); Fairmaire, Rev. Memb. p. 268, pl. 4, fig. 8 (1846); Distant, Faun. Brit. Ind. iv, p. 4, fig. 1 (1907); Distant, Ins. Transv. i, p. 209, pl. 21, fig. 11 (1908). Eastcourt, Durban, Natal, Waterburg, Transvaal; Senegal; Egypt; Abyssinia; Kibotini, East Africa; East Indies.
- rufus** Buckton, Mon. Meb. p. 254, pl. 56, fig. 2 (1903). Mysore, India.
- neuter** Buckton, Mon. Memb. p. 254, pl. 58, fig. 3 (1903). Madras, India.
- lamborni** Distant, Ann. Mag. N. H. xviii, p. 19 (1916). South Nigeria.
- bisenta** Distant, Ann. Mag. N. H. xvi, p. 233 (1915). Durban, Natal, Salisbury, Rhodesia, Nlange, Nyasaland.
- caudatus** Buckton, Trans. Linn. Soc. Lond. ix, p. 335, pl. 22, fig. 9 (1905). Natal.
- pandatus** Distant, Ann. Mag. N. H. xviii, p. 20 (1916). Cameroons.
- delalandei** Fairmaire, Rev. Memb. p. 268 (1846). Mariut, Oasis Fajum, Egypt; Tunis; Jordan R., Syria, Sicily; (Natal, Cape, doubtful).
- subserratus** Walker, List Hom. B. M. p. 506 (1851). Belgium Congo, Angola.
- gambiæ** Fairmaire, Rev. Memb. p. 269 (1845). Senegal, Calabar.
- fastidiosa** Signoret, Thoms. Archiv. Ent. ii, p. 335 (1858). Calabar.
- gibbulus** Melichar, Wein. Ent. Zeit. xxiv, p. 294 (1905). Tanga, Kilimanjaro, Kibonoto, Usambara, Mombo, Ituri. East Africa; Cairo, Hilwan, Heliopolis, Egypt.
- egyptianus** Distant, Ann. Mag. N. H. xvi, p. 332 (1915). N. Ethai, Upper Egypt.
- tenebrosus** Walker, List Hom. B. M. p. 623 (1851). Sierra Leone.
- nigropictus** Distant, Ann. Mag. N. H. xviii, p. 20 (1916). Upper Nzoia R., East Africa.
- labatus** Buckton, Trans. Linn. Soc. Lond. ix, p. 335, pl. 22, fig. 10 (1903).

#### PLATE II (after Jacobi)

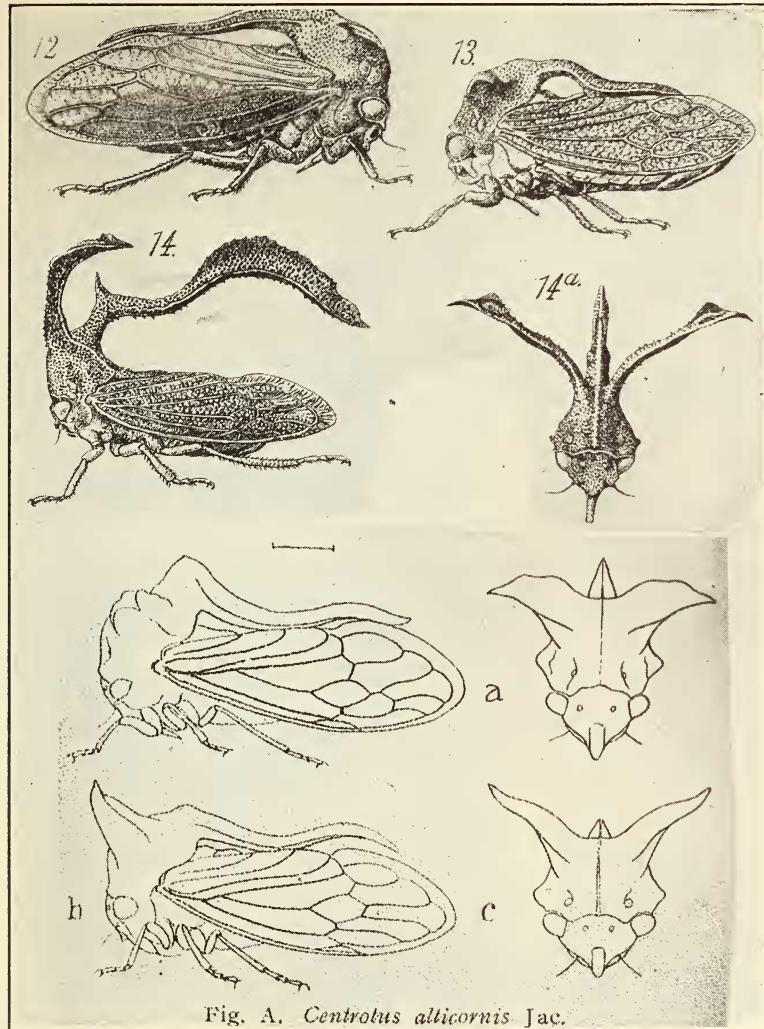
Figure 12. *Leptocentrus limbipennis* Jacobi.

Figure 13. *Centrotus subnodosus* Jacobi.

Figures 14 and 14a. *Paraxiphopoeus schubotzi* Jacobi.

a. *Spalirises alticornis* Jacobi.

b, c. *Spalirises humilis* Goding.

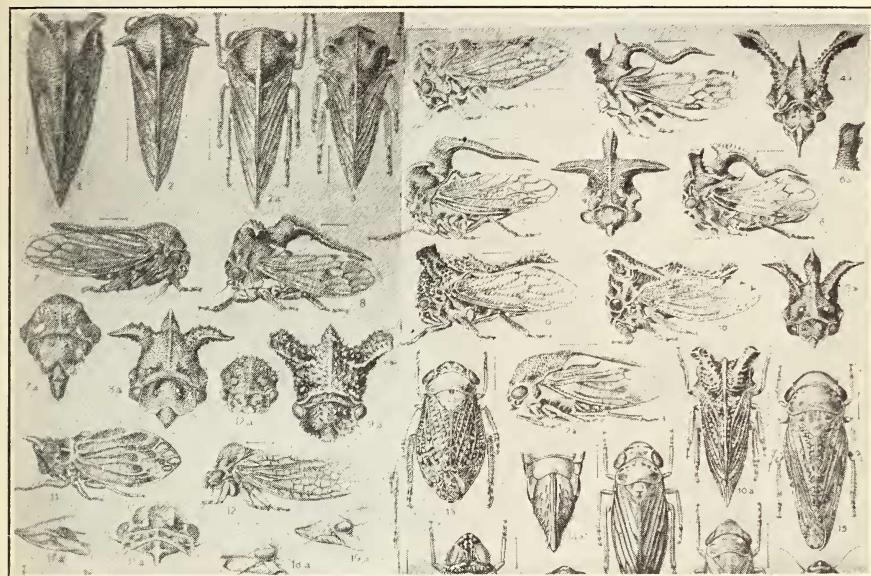
Fig. A. *Centrotus allicornis* Jac.

MEMBRACIDÆ

## PLATE III (after Jacobi)

- Figures 1 and 10. *Gongroneura pictipennis* Buckton.  
Figure 2. *Leptocentrus montanus* Jacobi.  
Figure 2a. *Leptocentrus confusus* Distant.  
Figures 3 and 3a. *Gongroneura brevipennis* Jacobi.  
Figures 4 and 4a. *Anchon dschagga* Jacobi.  
Figures 5 and 5a. *Planecornua infracta* Jacobi.  
Figures 6, 6a, 6b. *Anchon aries* Jacobi.  
Figures 7 and 7a. *Xiphistoides inermis* Jacobi.  
Figures 8 and 8a. *Euxiphopoeus hireulus* Jacobi.  
Figures 9 and 9a. *Negus asper* Jacobi.  
Figures 12 and 12a. *Coloborrhis perspicillaris* Gerstaecker.

The others are not membracids.

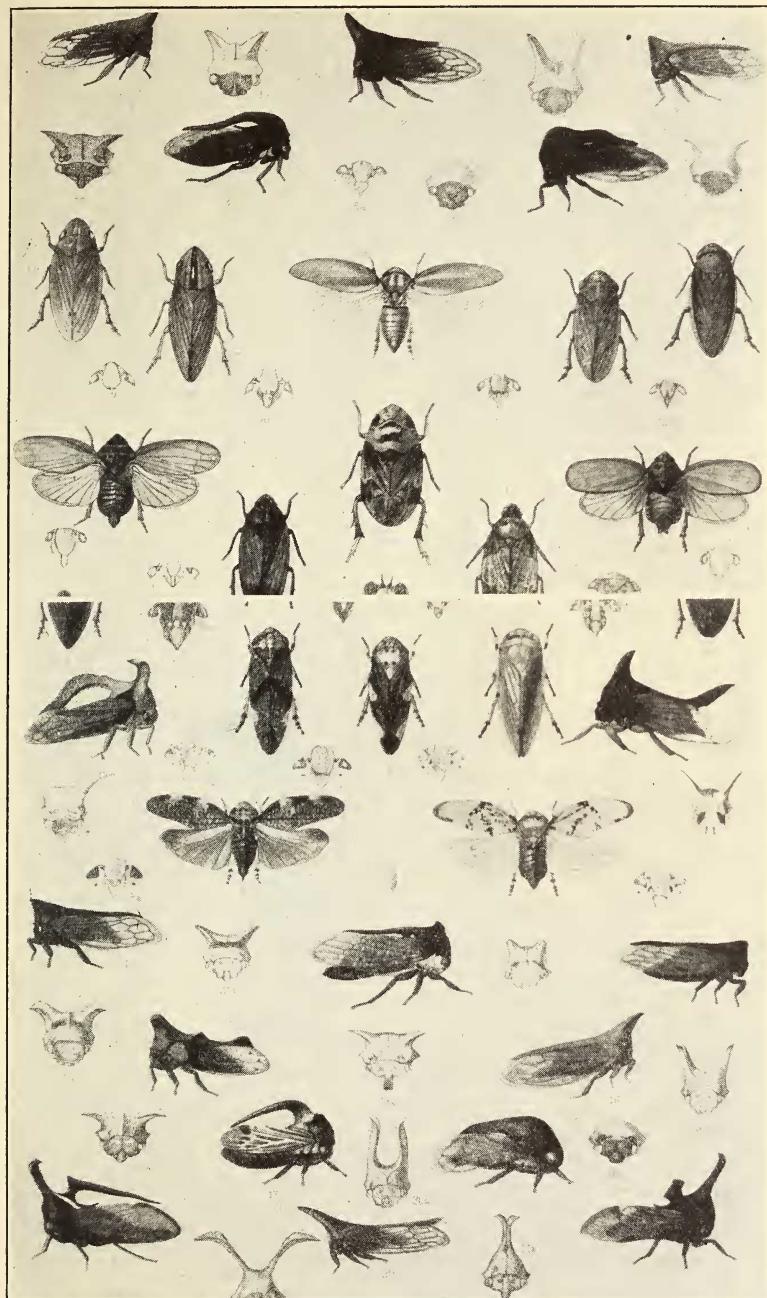


MEMBRACIDÆ

## PLATE IV (after Distant)

- Figures 1 and 1a. *Xiphistes concolor* Buckton.  
Figures 2 and 2a. *Xiphistes suberecta* Walker.  
Figures 3 and 3a. *Xiphistes exigua* Buckton.  
Figures 4 and 4a. *Tshaka naturalis* Distant.  
Figures 5 and 5a. *Kombazana fidclis* Distant.  
Figures 10 and 10a. *Xiphopoeus horridulus* Walker.  
Figures 11 and 11a. *Oxyrhachis tarandus* Fabricius.  
Figures 12 and 12a. *Xiphistes furcicornis* Germar.  
Figures 13 and 13a. *Centrotus bantuatus* Distant.  
Figures 14 and 14a. *Xiphistes tuberculatus* Walker.  
Figures 15 and 15a. *Gongroneura delalandei* Buekton.  
Figures 16 and 16a. *Xiphistes sulcicornis* Thunberg.  
Figures 17 and 17a. *Tricoeseps pubipennis* Fairmaire.  
Figures 18 and 18a. *Gargara makalakæ* Distant.  
Figures 19 and 19a. *Anchon nodicornis* Germar.  
Figures 20 and 20a. *Xiphistes longicornis* Distant.  
Figures 21 and 21a. *Congellana leighi* Distant.

The others are not membracids.



MEMBRACIDÆ